

REMARKS

It is submitted that these claims, as originally presented, are patentably distinct over the prior art cited by the Examiner, and that these claims were in full compliance with the requirements of 35 U.S.C. §112. Changes to these claims, as presented herein, are not made for the purpose of patentability within the meaning of 35 U.S.C. §101, §102, §103 or §112. Rather, these changes are made simply for clarification and to round out the scope of protection to which Applicants are entitled.

Claims 3 and 13 have been canceled herein. Claims 2, 4-10, 12, and 14-20, and amended claims 1 and 11 are in this application.

The Abstract of the disclosure was objected to "because it should be 1 paragraph only and no figure reference at the end." The Abstract has been amended herein so as to correct these matters.

Claims 1-20 were rejected under 35 U.S.C. 102(b) as being anticipated by Hornak et al. (GB 2 2324 919 cited by applicant). In explaining this rejection, the Examiner appears to rely on Figs. 12 and 18 and pages 21-22 of Hornak.

Claim 1, as presented herein, recites in part "wherein said digitally modulated signal (S_0) is modulated in a signal band having a center frequency (f_c) and said local oscillator signal has a center frequency (f_{lo}), which is, in respect to said frequency (f_c) of the signal band, offset by half of the signal band width of the modulated digital signal (S_0)."
It is respectfully submitted that the portions of Hornak relied upon by the Examiner (hereinafter, merely "Hornak") do not disclose such feature.

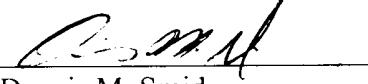
Accordingly, it is believed that amended independent claim 1 is distinguishable from Hornak. Similarly, it is believed that amended independent claim 11 is distinguishable from Hornak. Claims 2, 4-10, 12, and 14-20 are dependent from one of these independent claims and, due to such dependency, are also believed to be distinguishable from Hornak for at least the reasons previously described.

Attached hereto is a marked-up version of the changes made to the claims and the abstract by the current amendment. The attached page is captioned "Version with markings to show changes made."

It is to be appreciated that the foregoing comments concerning the disclosures in the cited prior art represent the present opinions of the Applicants' undersigned attorney and, in the event, that the Examiner disagrees with any such opinions, it is requested that the Examiner indicate where in the reference, there is the bases for a contrary view.

Please charge any fees incurred by reason of this response to Deposit Account No. 50-0320.

Respectfully submitted,
FROMMER LAWRENCE & HAUG LLP

By: 

Dennis M. Smid
Reg. No. 34,930
(212) 588-0800

"VERSION WITH MARKINGS TO SHOW CHANGES MADE."

IN THE CLAIMS

Cancel claims 3 and 13 without prejudice.

Please amend claims 1 and 11 by rewriting the same as follows:

--1. (Amended) Demodulation structure for downconverting and demodulating a digitally modulated signal (S_0), [with] comprising:

 a local oscillator means (1, 5, 8) for providing a local oscillator signal (S_{lo}),

 a mixer means (2) for mixing said local oscillator signal (S_{lo}) and said digitally modulated signal (S_0) in order to obtain a mixed signal,

 a low pass filter means (3) for low pass filtering said mixed signal from said mixer means (2), and

 an analog-to-digital converting means (4) for converting the filtered signal from said low pass filter means (3) into a downconverted and demodulated digital signal (S_1),

 whereby said local oscillator signal is set in respect to said modulated digital signal so that said downconverted and demodulated digital signal (S_1) output from said analog-to-digital converting means comprises two serially arranged information parts, and

wherein said digitally modulated signal (S_0) is modulated in a signal band having a center frequency (f_c) and said local oscillator signal has a center frequency (f_{lo}), which is, in respect to said frequency (f_c) of the signal band, offset by half of the signal band width of the modulated digital signal (S_0).--

--11. (Amended) Method for downconverting and demodulating a digitally modulated signal (S_0), [with] comprising the steps of:

providing a local oscillator signal (S_{lo}),

mixing said local oscillator signal (S_{lo}) and said digitally modulated signal (S_0) in order to obtain a mixed signal,

low pass filtering said mixed signal, and

analog-to-digital converting the filtered signal into a downconverted and demodulated digital signal (S_1),

whereby said local oscillator signal (S_{lo}) is set in respect to said modulated digital signal (S_0) so that said downconverted and demodulated digital signal (S_1) comprises two serially arranged information parts, and

wherein said digitally modulated signal (S_0) is modulated in a signal band having a center frequency (f_c) and said local oscillator signal (S_{lo}) has a center frequency (f_{lo}) which is, in respect to said center frequency (f_c) of the signal band, offset by half of the signal band width of the modulated digital signal (S_0).--

IN THE ABSTRACT

On page, 16, please cancel the abstract and, in place thereof add the following:

--ABSTRACT OF THE DISCLOSURE

--The present invention relates to a demodulation structure and method for downconverting and demodulating a digitally modulated signal S_o , with a local oscillator means (1; 5; 8) for providing a local oscillator signal S_{lo} , a mixer means (2) for mixing said local oscillator signal S_{lo} and said digitally modulated signal S_o in order to obtain a mixed signal, a lowpass filter means (3) for lowpass filtering the mixed signal from the mixer means (2) and an analog-to-digital converting means (4) for converting the filtered signal from the lowpass filter means (3) into a downconverted and demodulated digital signal S_1 , whereby the local oscillator signal is set in respect to the modulated digital signal so that the downconverted and demodulated digital signal output from the analog-to-digital converting means comprises to serially arranged information parts. The present [invention provides a] demodulation structure [and method with] provides a very simple structure [and essentially] with improved amplitude and phase imbalances.

[(Figure 1)]--